



**THE
ENGINE**

Built by MIT

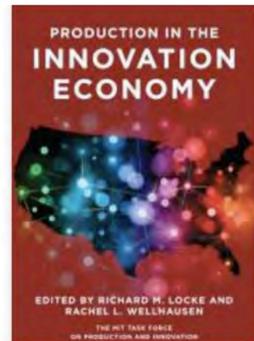
A New Innovation System for Tough Tech

Katie Rae, Managing Partner & CEO, The Engine | January 21, 2022

A New System to Support & Fund the Next Generation of Tough Tech Companies



Rafael Reif, President of MIT



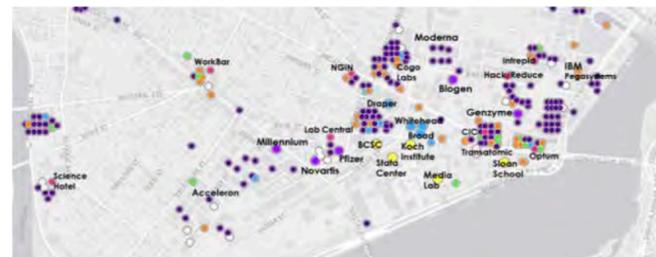
The Washington Post

May 22, 2015

A better way to deliver innovation to the world

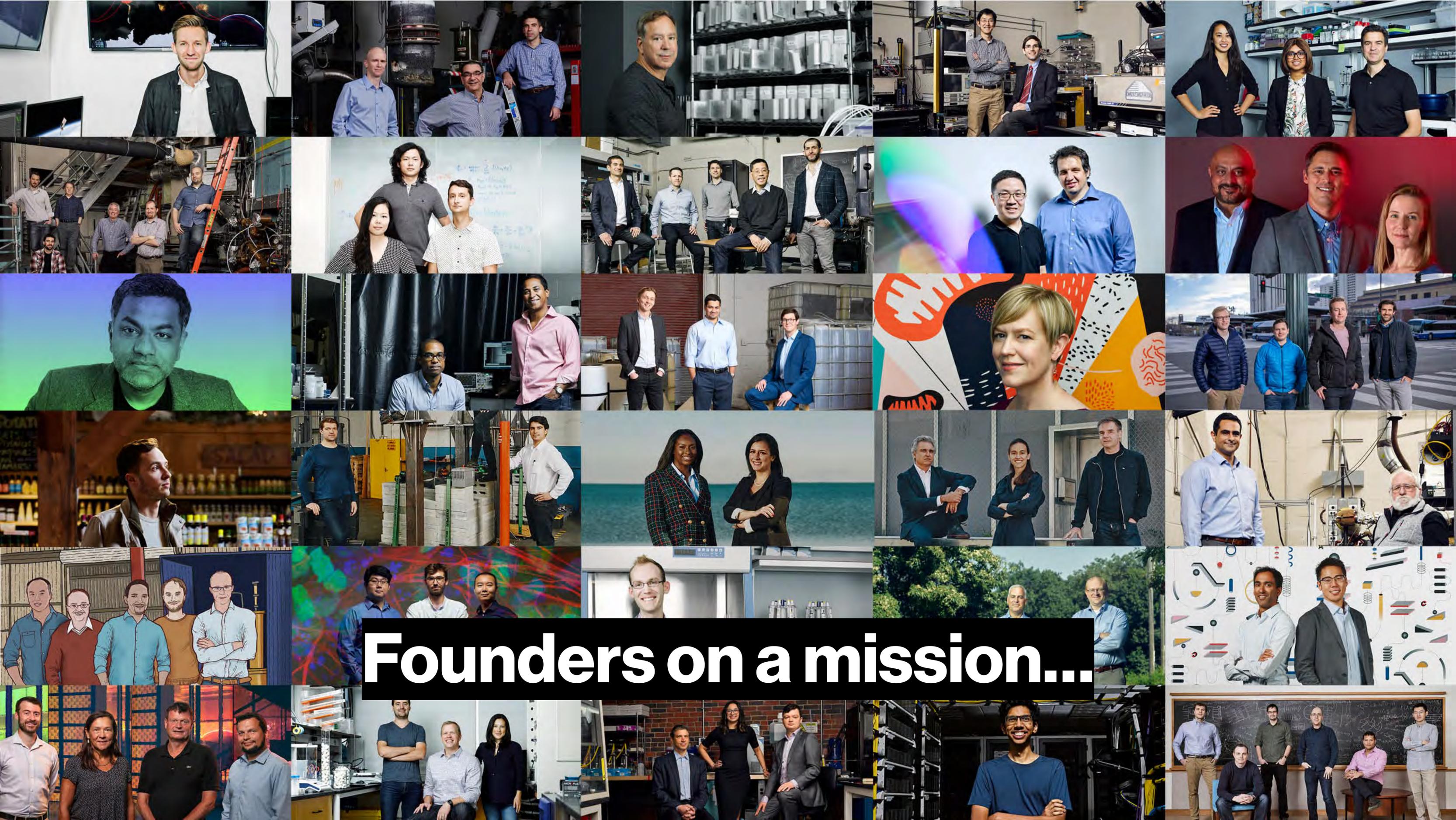
In the past two decades, and especially the past five years, the United States has undergone a profound shift in how it develops, adopts and capitalizes on innovation. Today, our highly optimized, venture-capital-driven innovation system is simply not structured to support complex, slower-growing concepts that could end up being hugely significant — the kind that might lead to disruptive solutions to existential challenges in sustainable energy, water and food security, and health.

This is no criticism of U.S. venture capital, which does its job extremely well. Nor is it a plea for government-funded innovation. Federal support is crucial for fundamental and applied science, which leads to new technologies and innovation. But government cannot effectively supply large-scale, long-term funding for new companies and products. And it may be unrealistic to expect big corporations to patiently invest in technologies designed to impatiently disrupt them.



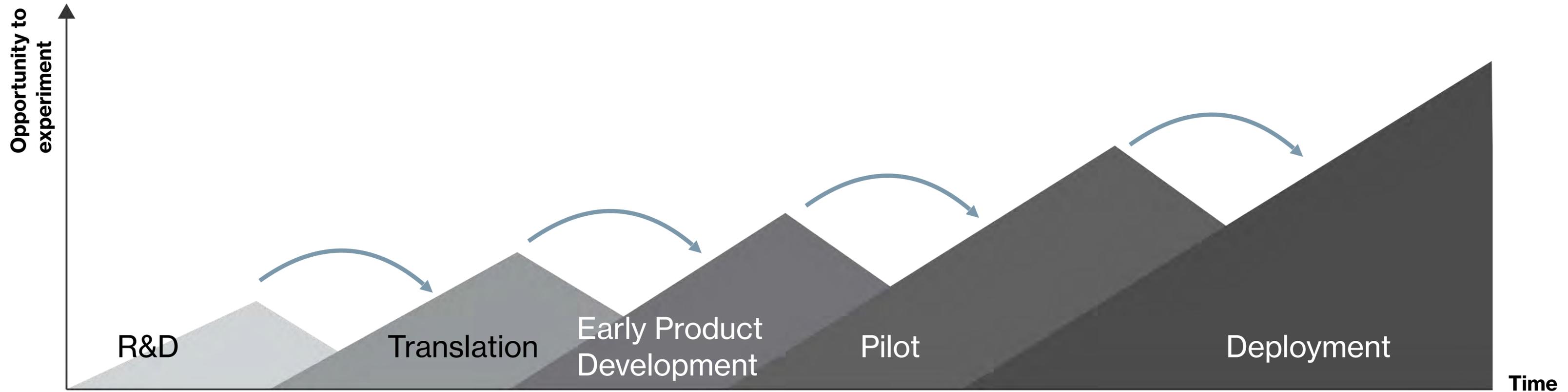
FUND I
CLOSE
2017





Founders on a mission...

Tough Tech Companies Face Multiple Hurdles Throughout Commercialization



Valley of Death #1:
Startup Formation

Valley of Death #2:
Product Development

Valley of Death #3:
Market Validation

Valley of Death #4:
Establish Track Record

Key Players:

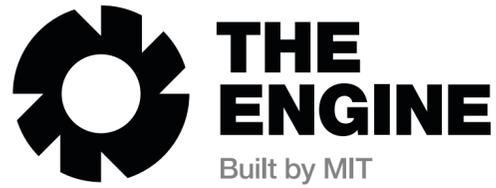
- Federal Government
- National Labs
- Academia
- Major Corporations

- Federal Government
- Angel Investors
- Venture Capital
- State Incubators

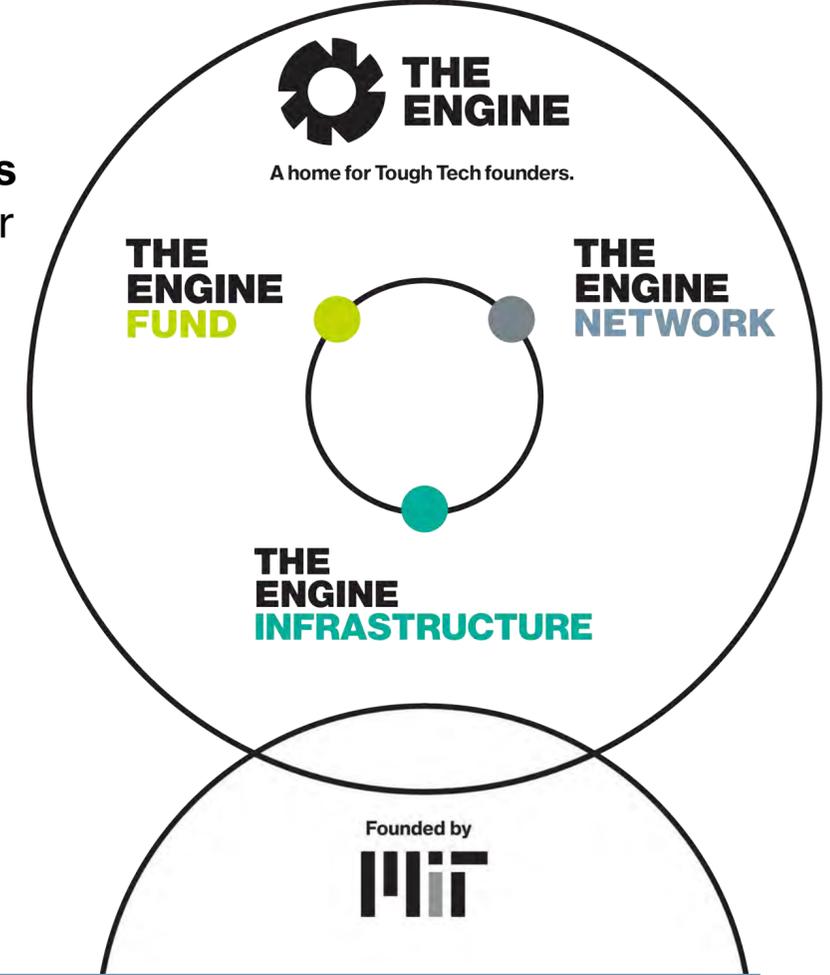
- Federal Government
- Venture Capital
- Private Industry

- Federal Government
- Venture Capital
- Private Industry

- Federal Government
- Federal Industry
- Private Equity
- Debt Finance
- Public Markets
- Customers



The Engine invests in **early-stage companies** solving the **world's biggest problems** through the convergence of breakthrough science, engineering, and leadership. Our mission is to accelerate the path to market for **Tough Tech** companies through the combination of **capital, infrastructure, and network**.



37

PORTFOLIO COMPANIES

900+

TOTAL EMPLOYEES

~\$3.3B

TOTAL CAPITAL RAISED

\$672M

ASSETS UNDER MANAGEMENT

Programming

To turn Tough Tech breakthroughs into Tough Tech startups.

Convening & Engaging Community

Gov. representatives & policy makers, funders, entrepreneurs, academics, strategics.

Developing Talent

To support growth of jobs & companies in new industries.

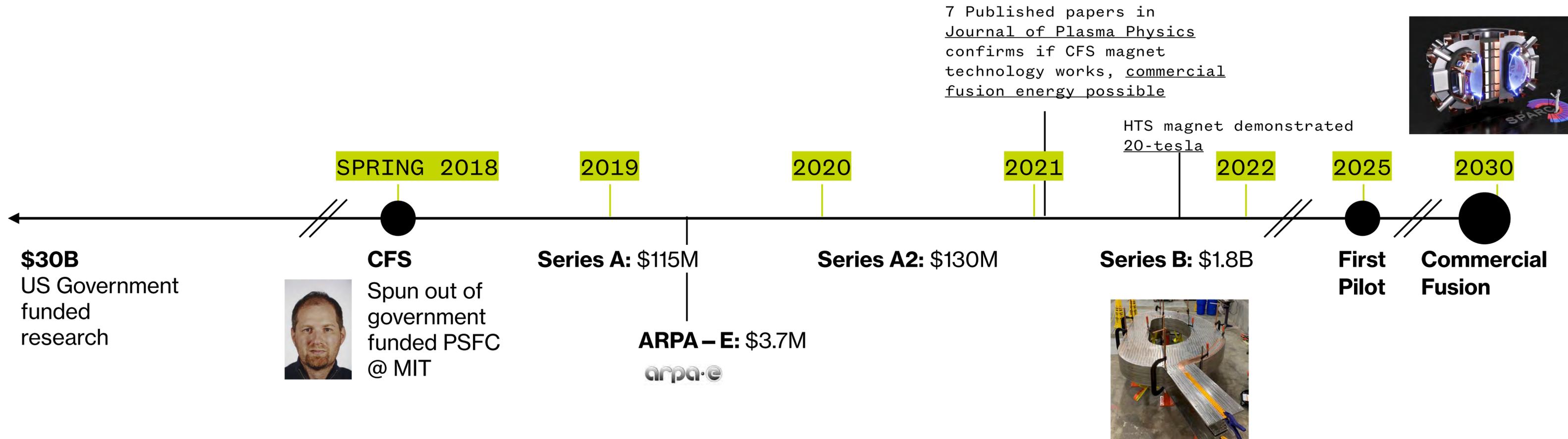
Infrastructure

Lab, office, and fabrication for companies to build in.

Capital

Non-dilutive, venture, pilot, & procurement.

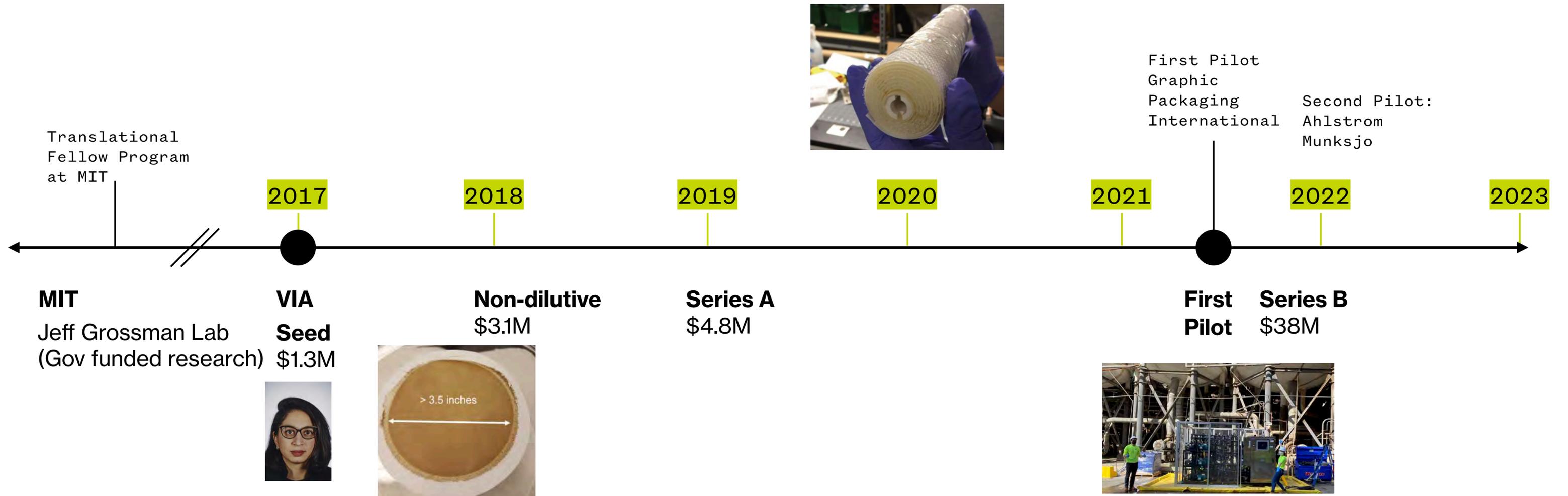
Safe, unlimited, carbon-free fusion power for the grid in 10-15 years.



Total Non Dilutive Capital: \$7M+ from R&D collaborators

Infrastructure: Fabrication space | first pilot site | magnet assembly space

Up to 90% energy savings in separation process in the pulp & paper, chemical, and dairy industries.



Government Support & Awards: I-Corps Program, ARPA-E OPEN Award, NSF & USDA SBIR, MassCEC

Infrastructure: Chemistry labs | Fabrication space



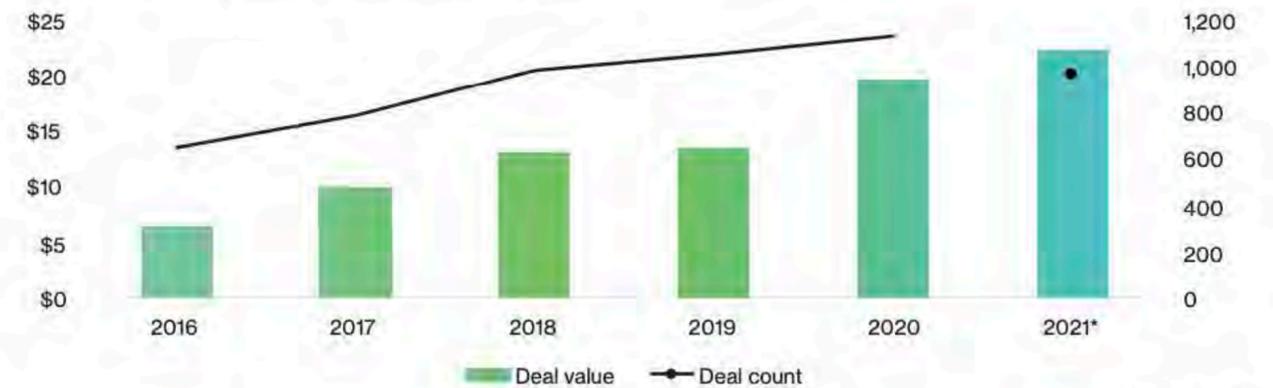
These anecdotes are representative of broader trends in Early Stage Climate Tech.

Capital is following the creation of massive markets in renewable power, energy storage and vehicle electrification in particular

Emerging areas receiving capital now also include:

- Broader electrification of end uses (steel, cement, etc.)
- Hydrogen production and storage
- Carbon capture, utilization and storage

Global VC Deal Activity in Climate Change (\$B)



Source: PitchBook
*As of August 31, 2021

Global VC Exit Activity in Climate Change (\$B)



Source: PitchBook
*As of August 31, 2021

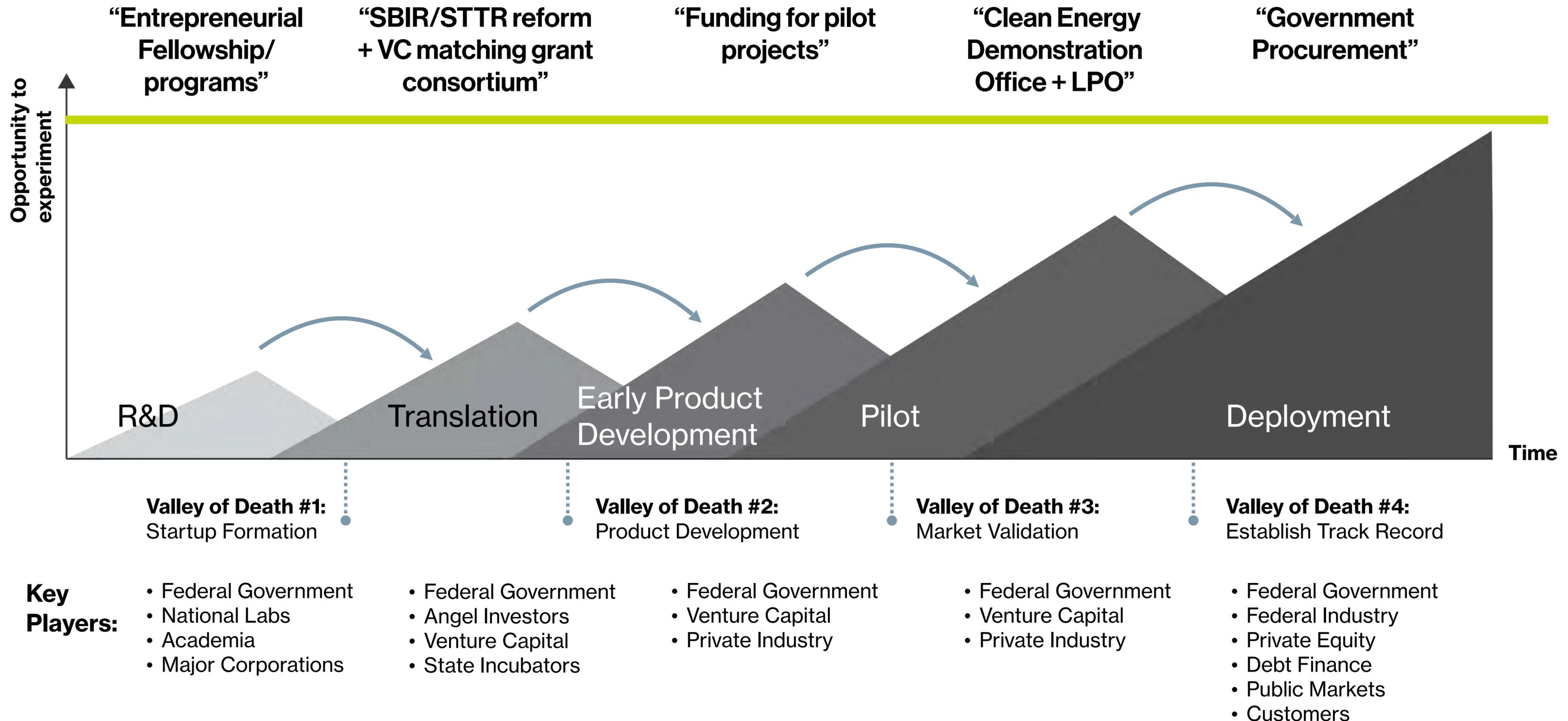
\$22.3B

VC INVESTED IN CLIMATE CHANGE COMPANIES (01/2021–08/2021)

957

VC TRANSACTIONS COMPLETED IN CLIMATE CHANGE (01/2021–08/2021)

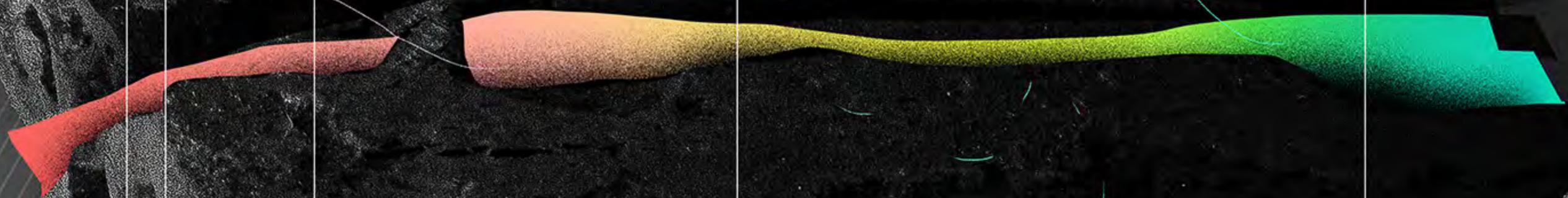
Opportunities for the Government to Support at Every Stage of Company Development





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Thanks.
